

IN THE CLAIMS

Please add claims 19-36 as shown below.

Please cancel claims 16-18 as shown below.

1-13 (Canceled)

14. (Previously Presented) A method for evaluating a gas flow characteristic of a gas path component for a gas turbine engine, comprising:

providing a source of gas, a chamber including a support member for supporting the component, and a rotatable measurement section located downstream of the component and having therein at least one flow-responsive measurement device;

mounting the component with the support member;

placing the measurement device at a first location downstream of the component;

directing a flow of the gas from the source into the chamber and through the component;

flowing the gas exiting the component proximate to the measurement device;

making a first measurement of a property of the gas with the measurement device placed at the first location;

rotating the measurement device to a second location downstream of the component;

directing a flow of the gas from the source into the chamber and through the component;

flowing the gas exiting the component proximate to the measurement device; and

making a second measurement of a property of the gas with the measurement device placed at the second location.

15. (Original) The method of claim 14 wherein the measurement device is movable along an arc, and said moving is by rotating the measurement device through a portion of the arc.

16-18 (Canceled)

19. (New) A method for evaluating a gas flow characteristic of a component having an internal gaspath, comprising:

providing a source of gas flowing through an aperture;

supporting the component to provide essentially all of the gas flowing through the aperture into the internal gaspath of the component in a first flow direction;

making a first measurement of a property of the gas with the gas flowing in the first flow direction;

supporting the component to provide essentially all of the gas flowing through the aperture into the internal gaspath of the component in a second flow direction opposite to the first flow direction; and

making a second measurement of a property of the gas with the gas flowing in the second flow direction.

20. (New) The method of claim 19 which further comprises calculating a first characteristic of the component from said making a first measurement and calculating a second characteristic of the component from said making a second measurement.

21. (New) The method of claim 20 wherein the component includes a vane worn or eroded from previous operation in a gas turbine engine, and which further comprises repairing the vane prior to said making a first measurement.

22. (New) The method of claim 21 which further comprises comparing the first characteristic to the second characteristic and determining whether or not the repair of the component is acceptable.

23. (New) The method of claim 19 wherein the component includes a vane for a gas turbine engine.

24. (New) The method of claim 19 wherein the component includes a vane worn or eroded from previous operation in a gas turbine engine, and which further comprises repairing the vane prior to said making a first measurement.

25. (New) The method of claim 24 wherein said supporting the component in a first flow direction includes releasing the gas that has flowed through the internal gaspath directly into ambient conditions and said supporting the component in a second flow direction includes releasing the gas that has flowed through the internal gaspath directly into ambient conditions.

26. (New) The method of claim 19 wherein said supporting the component in a first flow direction includes releasing the gas that has flowed through the internal gaspath directly into ambient conditions and said supporting the component in a second flow direction includes releasing the gas that has flowed through the internal gaspath directly into ambient conditions.

27. (New) The method of claim 19 wherein the component is arc-shaped and said making a first measurement includes a plurality of measurements made along an arc.

28. (New) The method of claim 19 wherein said providing includes a flow directing member located downstream of and proximate to the aperture, and which further comprises receiving gas into the flow directing member from the internal gaspath of the component, redirecting the gas from the internal gaspath with the flow directing member, and exhausting the gas from the flow directing member to about ambient conditions.

29. (New) The method of claim 14 wherein the component includes a vane for a gas turbine engine.

30. (New) The method of claim 14 wherein the component has a gaspath and wherein said directing a flow includes flowing essentially all of the gas from the source into the gaspath of the component.

31. (New) The method of claim 14 wherein the measurement device is in the shape of an airfoil.

32. (New) The method of claim 31 wherein each said measurement device includes a sensor producing a signal corresponding to the torque imparted by the gas onto the measurement device.

33. (New) The method of claim 14 wherein the component includes a vane worn or eroded from previous operation in a gas turbine engine, and which further comprises repairing the vane prior to said making a first measurement.

34. (New) The method of claim 33 which further comprises comparing the first measurement to the second measurement and determining whether or not the repair of the component is acceptable.

35. (New) The method of claim 33 wherein said measurement section includes a sensor for measuring the angular position of said measurement device relative to the component.

36. (New) The method of claim 35 wherein the measurement device includes a second sensor, and the second sensor is one of a strain gage, pressure transducer, accelerometer, anemometer including a wire, or piezoresistive element.